

TOPIC Yegorov Railroad Car Plant in Leningrad

25X1A

EVALUATION

25X1A

DATE OF CONTENT

ANNEX 1
21 July 1953

DATE OBTAINED

REFERENCES

PAGES 1 ENCLOSURES (NO. & TYPE) 1 - sketch on ditto

REMARKS

25X1X

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SOURCE

1. The Yegorov Railroad Car Plant was located east of the railroad line Leningrad (59°55'N/30°15'E) - Luga (58°44'N/29°52'E), and south of the Warsaw railroad station. The main entrance of the plant was on the Mezhdunarodnaya road. The plant was damaged during the war but was completely repaired by November 1947. Some of the machines came from Germany, allegedly from the Rautzen (0 52/1 60) Railroad Car Plant.
2. The plant comprised a foundry, a latheshop, a forge, an assembly shop, a carpentry shop and a transformer station. In 1942, power was supplied to the plant from Volkhovstroy or from the GRES V Power Plant in Leningrad. The plant had spur tracks.
3. In addition to railroad cars and streetcars, wartime production of the plant included shells, aircraft bombs and artillery ammunition boxes. Conventional and welded all-metal coaches have been produced for the "Blue Express" since early 1947. The railroad cars were equipped with ventilators and pneumatic water systems (sic). In the spring of 1947, the production was allegedly 3 or 4 cars per week.
4. In 1947 the plant employed about 3,000 workers, half of whom were women. Work was done in two shifts and occasionally in three shifts. The plant was surrounded by a wooden fence with watchtowers and was guarded by plant militia.

25X1A

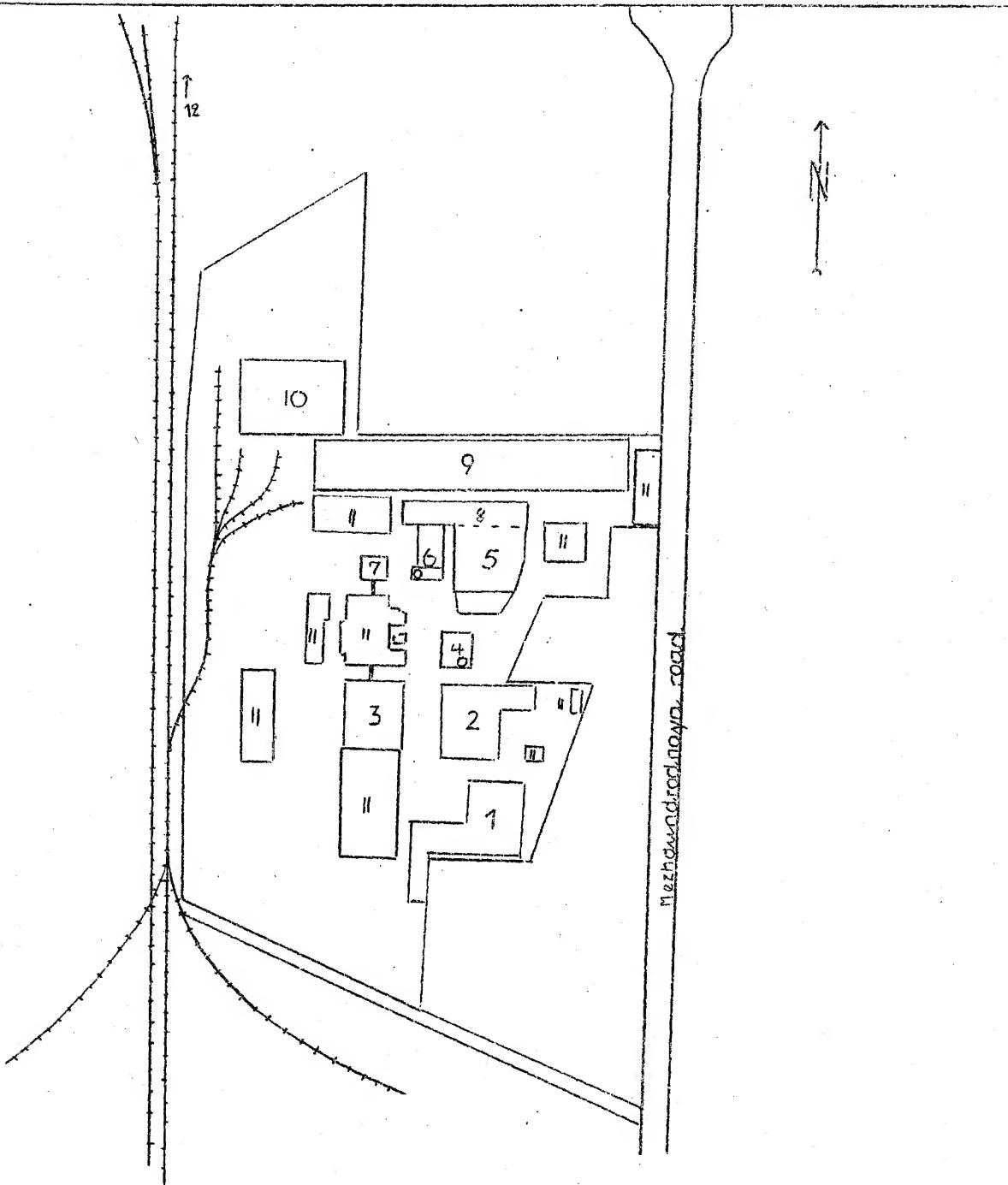
25X1X

Comment. For layout sketch of the plant, see Annex. This sketch was based on information from July 1942. According to Soviet publications from 1948 to 1950, 10 all-metal coaches were manufactured between January 1948 and May 1948. It is not known whether the monthly production was later increased. The construction of a new all-metal coach model was started early in 1949. Mass production of upholstered all-metal coaches started in January 1950. The cars were equipped with a lighting system and contained 58 berths. Since July 1949, all-metal mail cars and baggage cars have also been produced. These cars were equipped with lifting cranes for loading and unloading.

1 Annex: 1 sketch on ditto.

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Yegorov Railroad Car Plant in Leningrad



Legend: See next page.

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- 2 -

Legend:

1. Foundry.
2. Wood-working department.
3. Carpentry shop.
4. Forge equipped with six furnaces.
5. Latheshop.
6. Shop used for the production of component parts.
7. Transformer.
8. Shop used for the production of component parts.
9. Assembly department.
10. Warehouse for finished cars.
11. Plant buildings, use not known
12. To the Warsaw railroad station.

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COUNTRY		REPORT NO.	
S.P.		25X1A	
TOPIC		Nevsk Lenin Machine Factory in Leningrad	
25X1A		25X1A	
EVALUATION		OBTAINED Germany	
DATE OF CONTENT			
DATE OBTAINED		DATE PREPARED 19 October 1951	
REFERENCES			
PAGES 2		ENCLOSURES (NO. & TYPE) 1 - sketch on ditto	
REMARKS			
25X1X			

SOURCE

1. The Nevsk Lenin Machine Factory was in the southeastern part of Leningrad (59°55'N/30°15'E), on the left bank of the Neva River, southeast of the bridge of the railroad line to Schluesselburg (59°58'N/31°05'E). Southeast of the Lenin Plant was a nail factory and a spinning mill. There were spur tracks to the main railroad line.
2. The plant was built between 1860 to 1864, according to an inscription on workshop building No 5. In World War II the shipyard installations and the boiler construction department were severely damaged and, as of October 1948, were not yet completely rebuilt. Since 1945 the plant has been continuously modernized by the installation of new machinery. No expansion of the plant was observed.
3. The plant comprised a boiler factory, a turbine department, a department for the production of naval equipment, and a department for weapon production. The shipyard had ceased to function as such before the war and its buildings were used as warehouses. The plant also had a steel foundry, an iron and copper foundry, a forge, a boiler construction department, which manufactured buoys in 1948, a wire cable and net factory, two turbine departments, one department for manufacturing machine guns and submachine guns, one electric power station and various other installations. Power was supplied from a plant-owned power station. *
4. In 1948, the daily production comprised 300 to 400 buoys for the navy, steel cables, steel nets, 150 steel shears, and 500 shackles for the navy, 400 machine guns, and 300 submachine guns. In addition, 3 to 5 turbines were produced weekly. Ingot steel and steel castings were supplied to outside plants. **
5. The total number of employees was estimated at 9,000 of which 60 percent were women. Work was done mostly in three shifts, but in some departments only two shifts were worked. The key personnel included Abraham Hensler; Kopfstahl, (fmu); and engineer Papadian, (fmu). One Batlionase, (fmu), was the manager of Workshop No 35. ***
6. Each of the two plant sections was surrounded by a fence and guarded by armed plant police, including women.

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*

Comment. [REDACTED], the prewar production of the plant comprised blowers, turbo-compressors, steam boilers, traveling cranes, steel ingots and steel castings. Production was suspended during most of the war but in January 1945 the construction of blowers, with an output of 4,100 cubic meters of air per minute, was resumed. Later, the construction of compressors for the metallurgical industry was also started. Postwar production made quick progress. The capacity of the plant was considerably increased, without the construction of new installations, by converting 200 machine tools to high speed operation and by converting 94 percent of the steel departments to rapid smelting installations (Schnellschmelzen). The construction of turbines and turbo-blowers appears to have progressed rapidly and in 1949 sixteen different types of turbines and turbo-blowers were built. The plant has a close working relationship with the Stalin Turbine Construction Plant and the Elektrosila Generator Construction Plant in Leningrad. The Novok Lenin Plant supplied 50 percent of the steel casting requirements of the Elektrosila Plant.

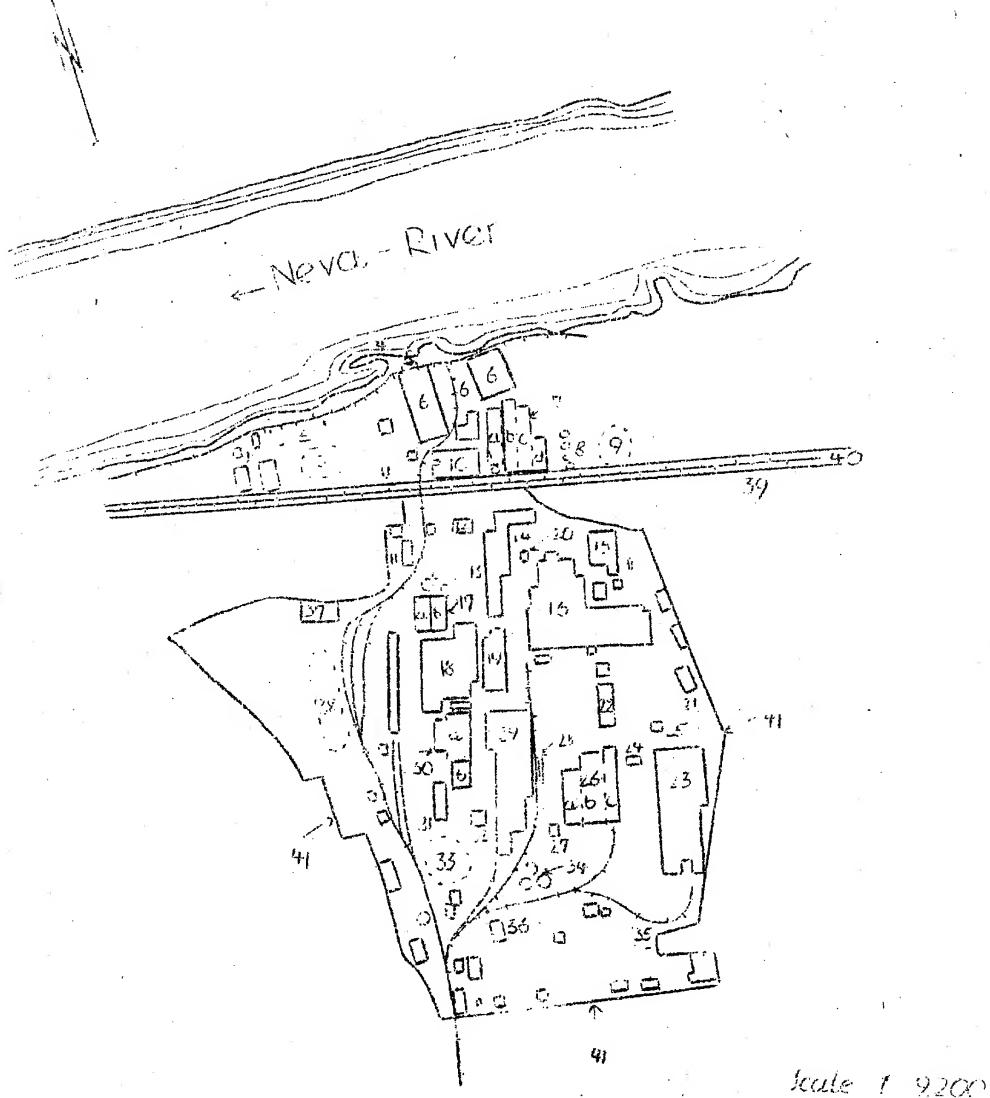
*** [REDACTED] Comment. According to Soviet press reports D. Vojkin, (fnu), was manager of the plant in 1950.

1 Annex: 1 - sketch on ditto.

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Layout Sketch of the Nevsk Lenin Machine Factory in Leningrad



Legend: See next page.

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Legend:

1. Sawmill and woodworking department.
2. Wood storage dump.
3. Athletics field.
4. Anchorage with a mole.
5. Stationary lifting crane. There was allegedly also a traveling crane.
6. Dock installations, shipbuilding yards. Some of these were not yet rebuilt by the end of 1948. The completed buildings served as warehouses for the storage of dismantled German machinery. Shipbuilding and repairing operations were not observed.
7. Buoy and cable factory. The building consisted of four sections.
 - a. Destroyed part of the building.
 - b. Workshop No 1b, equipped with 14 pneumatic hammers of 100 kg capacity each, lathes, and thread cutting machines. This shop produced shackles and steel shears (Stahlscheren) for naval use. The daily output was allegedly 150 shears and 500 shackles.
 - c. Workshop No 12a, "specify department for buoys used for mine sweeping operations and telephone buoys. The halves can be joined by workshop 11, the boiler construction department, were welded together, provided with screws and stabilizing fins, and tested for tightness under water at 5 atmospheres of pressure. The telephone buoys had plugs for cable connections on two sides. This shop produced 300 to 400 buoys daily.
 - d. Workshop No 5, wire cable and net factory. Wire cables ranging from 1 to 5 cm in diameter were produced. The quality was so bad that cables, made for a load of 15 tons, broke at a load of 7 tons during testing. The nets were made of a special steel wire which was supposed to be strong enough to prevent cutting under water. Part of the nets were provided with shackles at 10 meters intervals to facilitate transportation and assembling in the operational area. One source stated that this shop produced three-strand cables, 4.5 to 5 cm in diameter and 200 meters long, allegedly to be used for underwater blasting. Another source also observed cables, almost as thick as an arm, but stated that these cables came from outside plants.
8. Several tanks for turpentine and varnish.
9. Scrap dump.
10. Kitchen and plant school.
11. Garage and automobile repairshop. There were 6 to 8 CAS trucks, 4 Studebaker trucks, 4 ZIS trucks, and 4 JaAS trucks as well as ZIS passenger cars, 2 BMW passenger cars, and 1 Buick passenger car.
12. Administration building. A five-story structure.

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13. Workshop 20, laboratory and testing installation. A three-story structure. On the first floor was the material testing installation, where the products of the plant were tension and stress tested. Once a week, one of the sources moved one steel ingot from an outside furnace to this workshop where the ingots were Brinnell tested. Also the wire cables manufactured in workshop No 5 were tested in this workshop. The laboratory was on the second floor.
14. Workshop 34. Carpentry shop.
15. Workshop 35. Repairshop for plant owned vehicles. The workshop was equipped with 15 lead screw lathes, 5 vertical boring and turning mills, 12 drilling machines, some milling machines, electric hand operated drilling machines, 2 steam cranes of 15 tons and 20 tons capacity respectively. The following vehicles were in this shop: 4 large freight train locomotives, allegedly Henschel locomotives according to one source; 3 small locomotives, 2 Deutz Diesel locomotives; 4 steam cranes, each with a capacity of 4 tons, mounted on railroad cars; 3 magnet cranes, with a shovel capacity of 2 cubic meters each, mounted on caterpillar trucks; 2 large American Diesel cranes to 30 ton capacity mounted on caterpillar trucks, one of which was out of operation because of a shortage of spare parts and the other one was operated by one of the sources. A great number of the vehicles were constantly being repaired because of the unexpected operation of the vehicles.
16. Building housing various departments, including workshops 7, 11, and 12, the boiler construction department, and the pressing shop. The exact layout of the installations in this building was not known. Part of the building, including Workshop No 7, was still under construction in 1948 and another part was being equipped. Workshops 11 and 12 were in the completed part of the building. Workshop 11 was a pressing installation and was equipped with 3 large one-ton steam presses and 4 annealing furnaces. This shop produced parts for buoys which were taken to Workshop 12a in loads of 30 parts. Also machine gun parts, mostly mounts, were produced and these were taken to Workshop 2. Workshop 12 was a depot for dismantled German machinery and contained about 400 metal working machines and 100 welding units.
17. Workshop No 32, power plant, and compressor installation.
 - a. Boilerhouse, allegedly equipped with 3 coal-fired boilers with chain-type traveling grates.
 - b. Machine house, equipped with 3 steam turbines, one of which was still being installed late in 1948; 2 compressors for pressure of 5 atmospheres each, set up in 1948 but not yet put into operation; 5 AEG generators for A.C. current; and 1 transformer. The power station supplied steam and power to the entire plant as well as to two nearby mills. There was a cable connection to the large Svir Power Plant which could supply the power station if necessary.
 - c. Smoke stack.
18. Workshop No 24, forge and pressing shop equipped with 2 new heavy pneumatic hammers, 6 small steam hammers, 10 small pneumatic hammers, 2 presses for hot pressing, 1 press for cold pressing, and 12 to 15 oil-fired annealing furnaces. Production included shafts and axles, 5,000 mm long and 500 mm in diameter, for the turbine construction department. A small part of the production was delivered to the Kolpino (59°5'N/30°37'E) Fan Plant and to the Kirov Tool and Tractor Plant in Leningrad.

Workshop No 33, a welding shop, was housed in the northwestern section of the building.

19. Workshop No 2, machine gun and submachine gun shop, equipped with about 200 lathes, drilling, milling and planing machines. In 1948 the daily production was allegedly 400 machine guns and 300 submachine guns.

20. Boilerhouse which supplied steam to the boiler construction department and to the pressing shop.

21. Workshop No 44. Special latheshop equipped with 50 automatic lathes including vertical boring and turning mills, 50 special milling cutters, 35 drilling machines, and automatic punching machines. In 1948, this shop produced machine gun and submachine gun barrels, bolts, sights, ammunition boxes and ammunition belts, and coverings for machine gun barrels.

22. Warehouse.

23. Workshop No 22, a steel foundry equipped with 4 open-hearth furnaces with an alleged daily capacity totaling 1,500 to 1,800 tons of steel. Much of the steel produced was supplied in 1.5 ton ingots and as plates to outside plants, including the Kolpino Tank Plant and the plate-rolling mill south of the Lenin Plant in Leningrad. A foundry, a casting cleaning shop, a molding shop and a furnace department, equipped with 2 large and several small annealing furnaces, were in the same building.

24. Workshop No 25, the galvanizing department. Zinc and copper baths were observed.

25. Scrap crushing installation.

26. Turbine construction department No 2, including Workshops 4 and 6. This was a hall which was divided into three sections.

a. Workshop No 6, the turbine assembly shop. The capacity of the turbines assembled was known. The large turbines weighed 10 tons, and the smaller ones 10 tons. Three to five turbines were loaded weekly.

b. Workshop No 4, the turbine parts shop, equipped with 3 shaft lathes with a 20 meter distance between centers, 5 shaft lathes with a 10 meter distance between centers, 8 ordinary lathes and 5 vertical turning and boring mills. Shafts, bushings, blade wheels and cylinders were produced in this shop.

c. Turbine testing installation. This shop and Workshop No 6 were supplied with steam by the locomotive boiler installation.

27. Locomotive boiler installation.

28. Mechanical repair department.

29. Turbine construction department No 2.

30. Iron and copper foundry.

a. Iron foundry equipped with 2 cupola furnaces.

b. Copper foundry equipped with 2 electric melting furnaces of 1.5 ton capacity each.

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31. Workshop No 21, a pattern-making shop.
32. Fire brigade station.
33. Lumber yard.
34. Three large oil tanks.
35. Storage place for dismantled German machines.
36. Tool depot. In addition to all kinds of tools, large amounts of Widia cutting tips were also stored here, packed in boxes each containing 3 tons. Widia steel is a carbon steel of great hardness produced by the Krupp Plant for tool steel.
37. Depot ORS (sic).
38. Large coal dump.
39. Syola Smolenskovo Prospekt.
40. Streetcar line.
41. Fence.

The use of the unnumbered buildings was not known.

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COUNTRY U.S.S.R.

REPORT NO.

TOPIC Vologda Locomotive and Railroad Car Repair Plant.

25X1A

25X1A

EVALUATION [REDACTED] ACE OBTAINED [REDACTED]

DATE OF CONT [REDACTED]

DATE OBTAINED [REDACTED] DATE PRE [REDACTED]

REFERENCES [REDACTED]

PAGES 2 ENCLOSURES (NO. & TYPE) 2 - 2 sketches on ditto

REMARKS [REDACTED]

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SOURCE [REDACTED]

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1. The locomotive and railroad car repair plant was in the western outskirts of Vologda ($59^{\circ}20'N/39^{\circ}40'E$) opposite the freight station. There were several spur tracks to the main railroad line. The plant was called WPMS (Vologodski-Parovozo-Vagono-Remontny-Zavod; i.e. Vologda-Locomotive-Railroad-Car-Repair Plant). It was an old plant which has been modernized since 1945, mainly by the installation of American and German machinery. *
2. The plant covered an area of about 400,000 square meters. The plant installations comprised a large locomotive repairshop, a large railroad car repairshop, a boiler forge, a forge for axles and small parts, an axle and wheel latheshop, a latheshop for small parts, a foundry, a carpentry shop, a boilerhouse and various other installations. Power was supplied from the municipal power plant through a plant-owned transformer station. **
3. The repairwork of the plant included general repairs on locomotives, coaches and freight cars. Old Soviet locomotives, such as those used for feeder lines, were especially observed being repaired. According to sources, some of the locomotives under repair were of value only for scrap. The output of the plant varied according to the volume of repairwork to be done on the individual object and according to the supply of materials. The 1946 repair quota was allegedly 70 to 80 locomotives. Actually, 100 to 150 locomotives were repaired. According to one source 250 locomotives were repaired in 1948. The number of railroad cars repaired per year was not known. In addition to the railroad car repair, 60 old freight cars were observed being converted into hospital cars during 1948. Eighteen railroad cars or 12 locomotives could be processed simultaneously in each of the repairshops and assembly shops. In 1948 work frequently had to be suspended because of the recurring shortage of materials.
4. In 1948 the plant had 3,000 employees who worked in three shifts. In some departments there was only a one - or two-shift schedule. In 1948 the number of PWs employed in the plant was approximately 150. They worked only in the daytime shift.
5. The plant was surrounded by a wooden fence and watchtowers. It was guarded by armed plant police. Special sentries were posted at the warehouse, the large repairshops and the boilerhouse.

25X1A

- * [REDACTED] Comment. For location sketch of the plant, see Annex 1. This sketch is based on a town plan of April 1944, scale 1 : 15,400.
- ** [REDACTED] Comment. For layout sketch of the plant, see Annex 2, based on a town plan of April 1944 and on information from source.

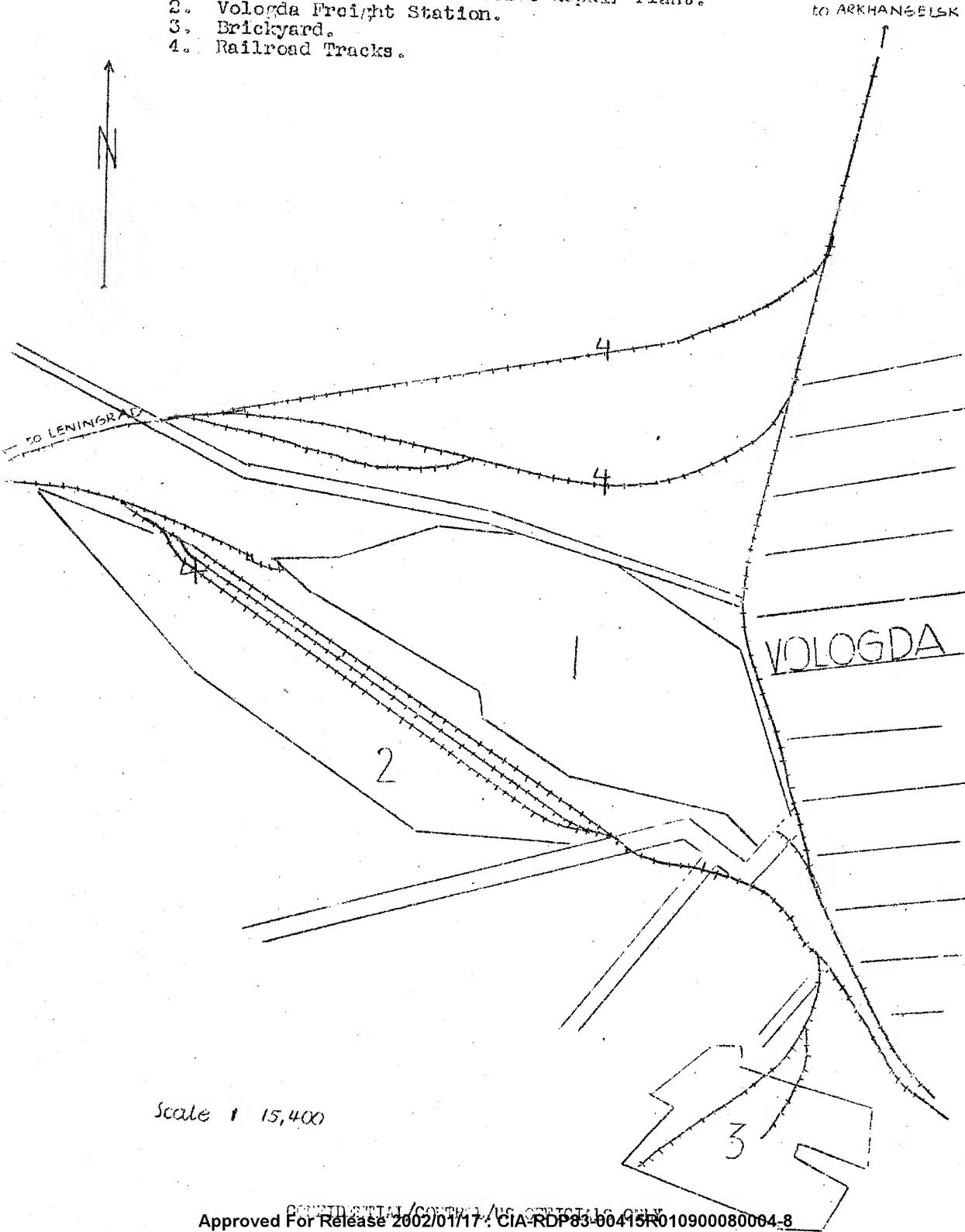
2 Annexes: 2 -- sketches on ditto.

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Location Sketch of the Vologda Locomotive and Railroad Car
Repair Plant

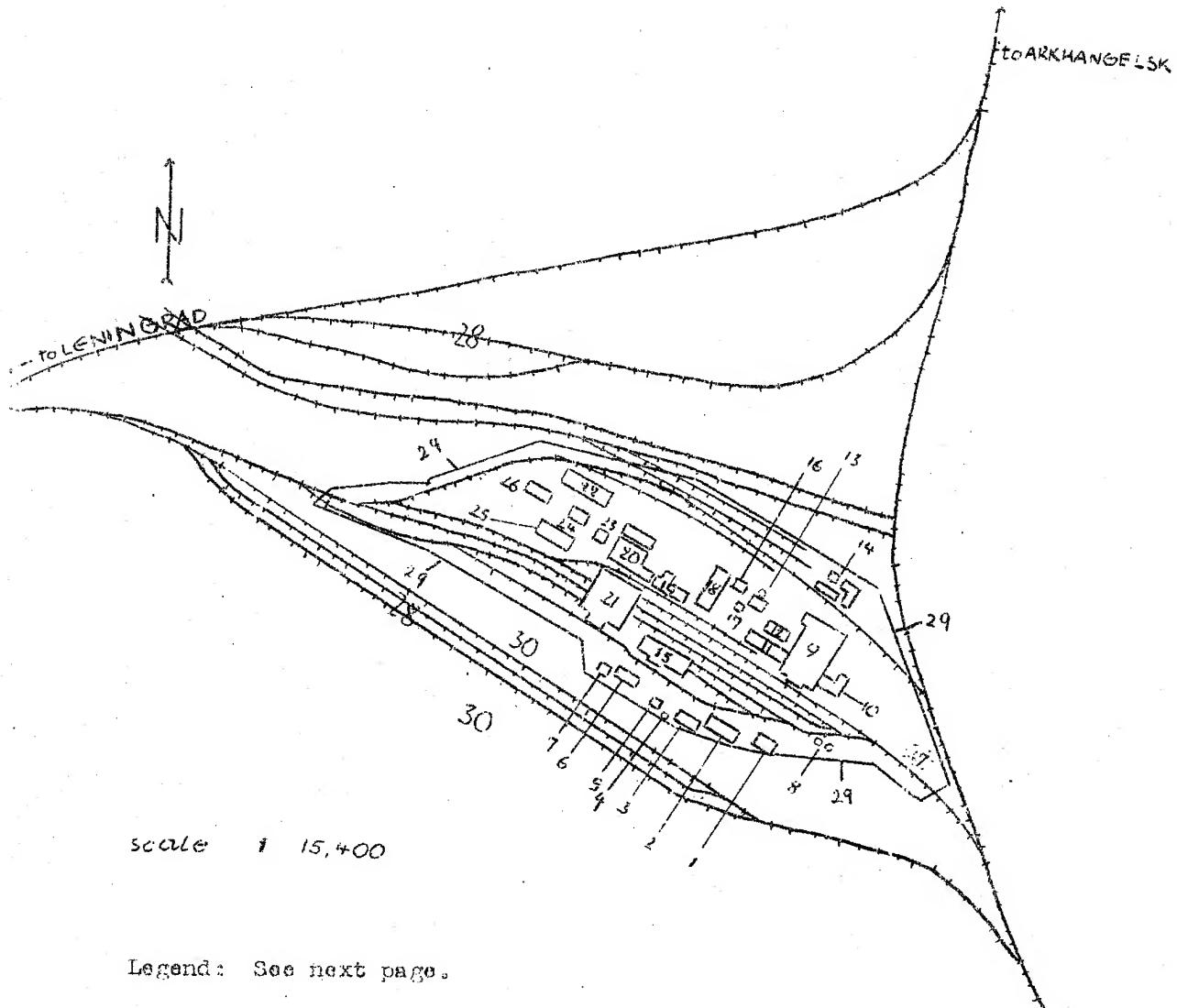
Legend:

1. Railroad Car and Locomotive Repair Plant.
2. Vologda Freight Station.
3. Brickyard.
4. Railroad Tracks.



Scale 1 15,400

Layout Sketch of the Vologda Locomotive and Railroad Car Repair Plant



Legend:

1. Diesel power plant.
2. Material depot.
3. Iron depot, a three-story structure which also houses the kitchen and mess-hall.
4. Water tower, 30 meters high and 13 to 15 meters in diameter.
5. Fire brigade station.
6. Wheel set warehouse.
7. Administration building.
8. Two oil tanks.
9. Locomotive repair and assembly shop. There were separate sections for 12 locomotives in which the locomotives were disassembled and reassembled after repair. This building also housed a copper forge, a fitting department, a welding shop and spare part depots.
10. Boiler forge.
11. Latheshop equipped with about 30 machine tools, including 12 lathes of various types, 3 to 4 planers, 3 milling machines and 6 to 8 grinding machines. Small spare parts for locomotives and railroad cars as well as screws and bolts were produced in this shop.
12. Tool shop and fitting shop, in which single parts needed for locomotive and railroad car repairs as well as tools, were produced. The equipment of the shops included 8 vertical drilling machines, 6 milling machines, 4 planing machines, 6 grinding machines and 10 to 12 work benches.
13. Boilerhouse equipped with three coal-fired boilers. Next to it was a smoke stack, 35 to 40 meters high.
14. Machine shop. In wartime it was used for the production of mortar ammunition. The present use is unknown.
15. Painting shop.
16. Compressor station.
17. Transformer station.
18. Forge equipped with 2 heavy and 6 to 8 light steam hammers, 1 large hydraulic press, 1 large punching machine, 2 large and 6 small electrically operated annealing furnaces. Locomotive and railroad car axles, bushings, bearings, bolts, buffers and frame parts were produced.
19. Wheel and axle latheshop equipped with several small and large lathes, milling machines and grinding machines. Wheel rims and axles for locomotives and railroad cars were produced.
20. Woodworking department, equipped with 10 to 12 woodworking machines used to process lumber for railroad cars.

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21. Railroad car repair and assembly shop. There were three to four tracks through this shop. There was sufficient space for the simultaneous repair of 15 railroad cars.
22. Foundry.
23. Boilerhouse for the wood drying installation.
24. Wood drying installation.
25. Department for the maintenance of plant equipment.
26. Sawmill equipped with one saw frame, five circular saws and six other wood-working machines.
27. Scrap dump.
28. Railroad tracks.
29. Fence.
30. Site of the Vologda freight station.

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TOPIC: *Engineer Montoirs Projects 37 cont in Leningrad*

25X1A

25X1A

EVALUATION: **ACE OBTAINED**

DATE OF CON:

DATE OBTAINED: DATE PREPARED: 25 July 1957

REFERENCES:

PAGES: 1 ENCLOSURES (NO. & TYPE): 2 Three sketches on ditto

REMARKS:

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25X1X

SOURCE: [REDACTED]

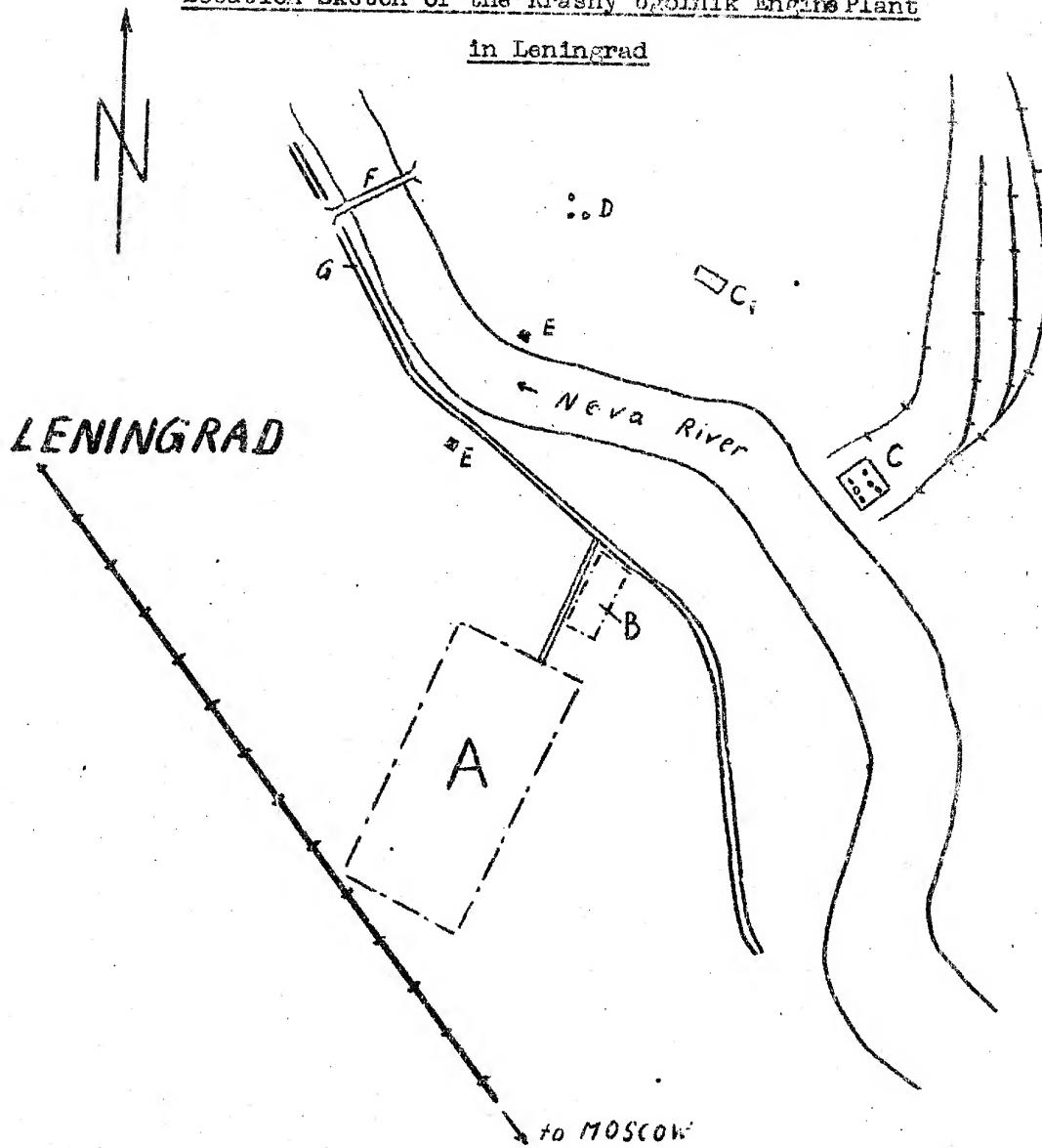
1. The Krasny Ugolnik Engine Plant was located in Leningrad between the Leningrad - Moscow railroad line and the Neva River. There was a bridge across the Neva River, about 1,800 meters north of the plant. The highway to Schluesselburg ($59^{\circ}55'N/31^{\circ}05'E$) led over this bridge. A peat-fired power plant, designated "5.IGS", was on the opposite bank of the Neva River. The plant area was about 1,000 x 700 meters. The plant installations comprised several machine shops, one hardening shop, one galvanizing department, one engine assembly department and engine test stands. Power was supplied from outside the plant through underground cables. The incoming current was 6,000 V and was reduced to 380 V for power and 220 V for lights. *
2. Source learned from Soviet workmen and engineers that 12 cylinder Diesel engines for speedboats were produced in this plant. The piston ring diameter was 120 mm, and the piston stroke 300 mm. The rate of production was allegedly four engines per shift. Work was done in three shifts, from 8 a.m. to 5 p.m., 5 p.m. to 1 a.m., and from 1 a.m. to 8 a.m. Source did not know how many persons were employed in this plant.

25X1A [REDACTED] Comment. For location and layout sketches of this plant, see Annexes 1 and 2. The designation "5.IGS" has apparently been misinterpreted by source. It is believed this designation refers to the Leningrad peat-fired power plant called Lenges or IGES No 5. For sketches of various engine parts produced, see Annex 3.

3 Annexes: Three sketches on ditto.

Location Sketch of the Krasny Ugolnik Engine Plant

in Leningrad

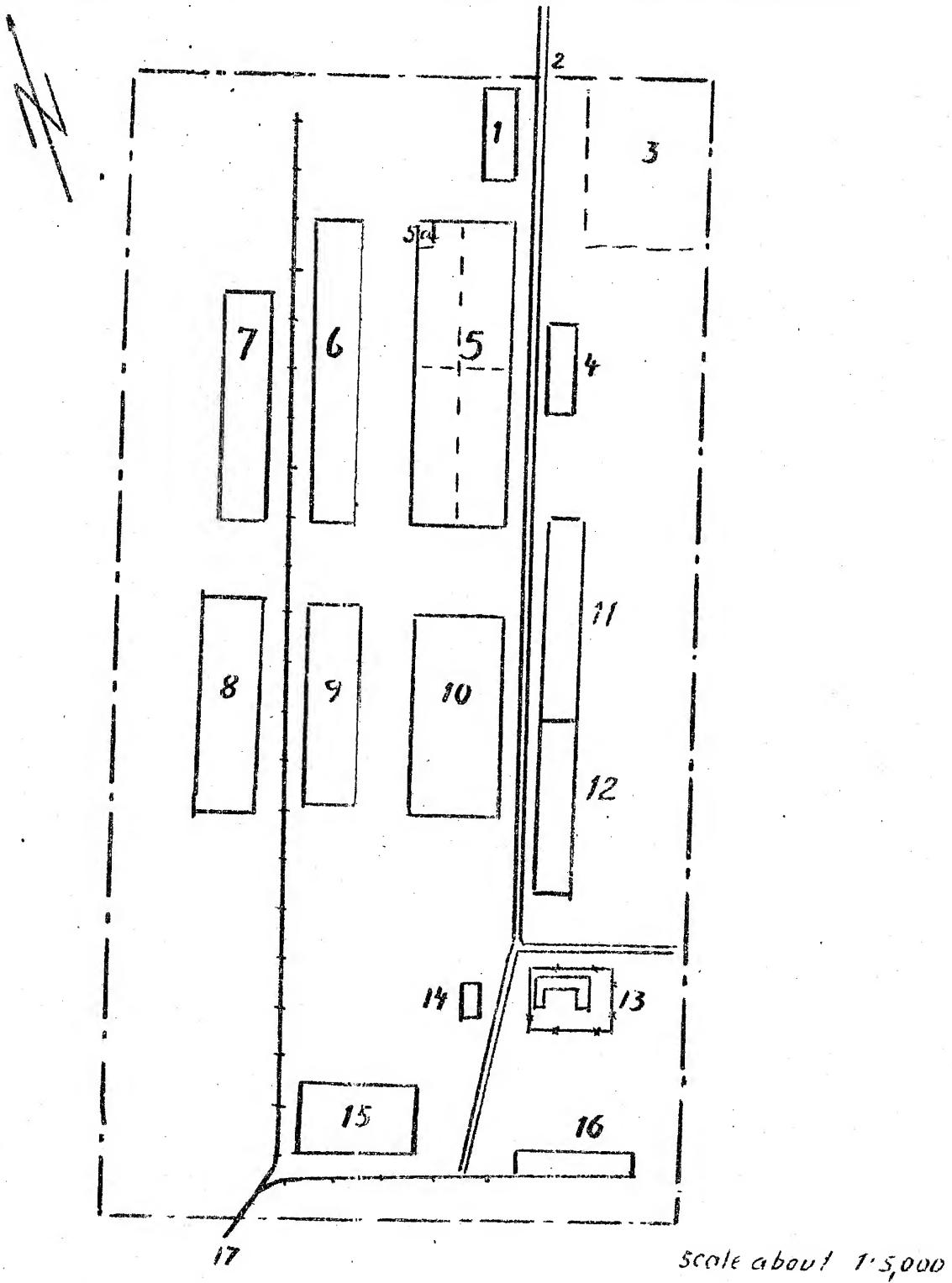


Scale 1:25,000

Legend:

- A. Krasny Ugolnik Plant.
- B. Streetcar terminal.
- C. Power Plant No 5, with six smokestacks.
- C1. Meteorological station.
- D. Antenna masts.
- E. High-tension towers, 60 to 70 meters high.
- F. Bridge, not identified.
- G. Highway to Schluesselburg.

Layout Sketch of the Krasny Ugolnik Engine Plant in Leningrad



Legend: See next page.

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Legend:

1. Administration building, 60 x 15 meters.
2. Road to the Neva River.
3. Storage area, 200 x 150 meters. Structural steel (Profilstaehle), round steel and special steel for engines were stored in this area.
4. Storage shed, 60 x 15 meters, for emery disks, milling machine parts, and all kinds of tools, mostly of German origin.
5. Machine shops, No 100, 200, 280 and 400. The entire workshop building covered an area of 200 x 80 meters. Camshafts, piston rings, bevel gear, wheels and cylinder liners were manufactured in these shops. Department No 100 was equipped with two "Viktoria" gear wheel milling machines, two German turret lathes, two drawing machines (Ziehmaschinen) used for reaming, one Italian grinding machine used for processing bevel gear wheels and cylinder liners and one special lace, which ground six piston rings in a single operation. No Soviet workmen were employed in Department No 100, but there were 20 PWs in each shift. Drop-forged crankshafts were processed and pins, as well as counterweights were produced in Department No 200. Department No 200 was equipped with five special lathes, 6 to 8 meters long, for tooling crankshafts. These lathes came from the Mercedes Benz Plant in Untertuerkheim (L 49/S 12). Source found a half-finished shaft in a lathe he was mounting. The equipment of this department also included one gun barrel drilling machine from Suhl (11 51/J 02), in which, while installing the machine, source found two half-finished barrels of the Model 42 machine gun. There were also 10 crankshaft grinding machines which came from the Borsig Plant in Tegel (N 53/Z 75), as well as hand operated emery and polishing disks, and 80 special milling and grinding machines from the Mercedes and Borsig Plants which had not yet been put into operation. Twenty-two PWs worked in Department No 200, but there were no Soviet workers in this department. Cylinder liners and packings made of aluminum, copper, and red brass were turned in Department No 280. The department was equipped with several lathes, polishing machines and a 6-meter long vertical turning and boring machine. There were 8 to 100 machines in this department but only one-third of the machinery was in operation. Crank cases made of duralumin and elektron were planed in Department No 400. The elektron chips burnt when set on fire. This department was equipped with 3 longitudinal planing machines, 5 column drilling machines (Saeulenbohrmaschinen), each having several spindles, and 10 to 15 drills. Department No 400 employed 30 to 40 Soviet workers per shift.
- 5a. Transformer installation.
6. Hardening shop, 200 x 40 meters, equipped with three electrically heated annealing furnaces used to caseharden camshafts, bevel gear wheels, and crankshafts, and several German Brinell machines, which could not be used because the diamond points had been removed.
7. Galvanizing department, 150 x 25 meters, in which cams and shafts were chromium-plated or nickel-plated. Eight Soviet women worked in this department in each shift.
8. Assembly department, 200 x 40 meters, Source was not allowed to enter this department, but when crankshafts were delivered to this department, source observed engines being assembled on an assembly line.
9. and 10. Two vacant workshops, 180 x 20 meters, and 200 x 40 meters.

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11. Engine test stands, 150 x 20 meters, equipped with two German hydraulic brakes for the absorption of energy during the testing and breaking-in of the engines.
12. Screw and bolt department No 300, 150 x 20 meters, equipped with 80 to 100 machines, only half of which were in operation. This department employed 50 to 60 Soviet workmen.
13. PW Camp No 7726, housed in an old workshop building and surrounded by a barbed-wire fence.
14. Saw mill, Department No 30, 20 x 15 meters, in which shipping crates were manufactured.
15. Warehouse about 60 x 125 meters. About 300 to 400 German machine tools were stored in this building.
16. Saw mill, 100 x 20 meters, equipped with a German multiple-blade saw-frame. This mill manufactured packing material.
17. Spur track to the main railroad line.

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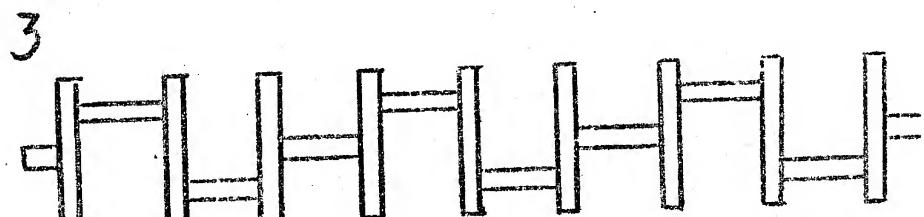
Sketches of Component Parts Produced in the Krasny Ugolnik
Engine Plant in Leningrad



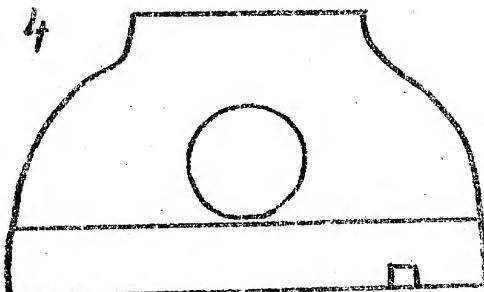
scale 1:10



scale 1:5



scale 1:10



scale 1:10

Legend:

1. Camshaft
2. Bevel gear wheel.
3. Crankshaft.
4. Crank case.